

Arizona Governor's Solar Energy Task Force



2011 Recommendations



Submitted to Governor Janice K. Brewer

December 23, 2011







Executive Summary

In March of 2011, Governor Janice K. Brewer signed an executive order establishing the Governor's Solar Energy Task Force (Task Force). The Task Force met for the first time on May 11, 2011 and has held four public meetings during the year to discuss and develop annual recommendations to be submitted by December 31, 2011.

The Task Force was charged with the following:

- a) Evaluate incentives provided to solar energy producers and manufacturers and recommend their continuation, elimination, improvement and/or expansion.
- b) Identify impediments which have halted or discouraged solar energy projects and have limited the implementation of distributive solar and recommend improvements regarding the same.
- c) Evaluate and propose reforms to public agency processes and tax structures that may advance development of solar energy.
- d) Advise the Governor on any solar energy matters deemed worthy by the Task Force.

The Task Force has evaluated and identified ways to promote the use of solar energy in Arizona. This has been accomplished with public input and discussion among Task Force members and a survey to best determine how to streamline a complicated solar permitting process.

Considering the timeframe, the Task Force has generated the first of a three-part series with recommendations to address permit reform for the vast majority of residential solar installations in the State of Arizona. Forthcoming White Papers will each address the commercial and utility scale market segments.

In addition, the Task Force recommends that the Governor, through executive order, create a Renewable Energy Rapid Response Team (R³ Team) to achieve better coordination amongst the various permitting authorities for solar projects that will advance economic development and job creation while cognizant of public protection considerations.

Permitting is a timely choice, as of December 1, 2011 the Arizona Governor's Office of Energy Policy (GOEP) was awarded \$708,992 for the "SunShot" Solar Initiative by the U.S. Department of Energy. The grant will identify best practices in finance, permitting, and zoning to move toward voluntary statewide uniformity. The "Rooftop Solar Challenge" project will drive adoption of an online system in five jurisdictions that allows for over-the-counter/same-day permit review. The GOEP led a regional team to apply for this grant working with the City of Flagstaff, the City of Phoenix, the City of Tucson, Arizona State University – Global Institute of Sustainability and SmartPower. Arizona was one of 22 regional teams competing for \$12 million in funding and will bolster our commitment to solar technology, allowing us to create statewide, streamlined processes for permitting and interconnection.

In the meantime, the following recommendations are a step in the right direction to help make Arizona-The Solar State.

Conclusion: The Task Force has identified permitting as the first step to enhance solar activity in Arizona. This report contains recommendations to streamline the permitting process in three stages, the first phase is **Residential Permitting** (see page 1). The Task Force also recommends that a **Renewable Energy Rapid Response Team (R³ Team)** (see page 7) be created by **Executive Order** (see sample page 11) to achieve better coordination amongst the various permitting authorities for solar projects that will advance economic development and job creation while cognizant of public protection considerations.

Next Steps – The Task Force will select sub-committees for:

- **Transmission** to complete a white paper on utility scale market segments, including the potential exporting of renewable energy;
- Finance to consider potential financing options such as Property Assessed Clean Energy (PACE) financing, which is a type of financing that is an alternative to a loan. This financing method may be used to encourage the installation of renewable energy and energy efficiency technologies by helping customers overcome the financial barrier associated with high up-front equipment costs and;
- Zones to participate and provide input to current federal efforts to create Solar Energy Zones
 (SEZs) in six western states, and state efforts to create Renewable Energy Development Areas
 (REDAs) within Arizona. The efforts are intended to identify areas suitable for large-scale solar
 energy projects (and in the Arizona process, wind projects as well) that coincide with low
 resource-conflict areas, and attract renewable energy development to these areas.

The Task Force will submit findings and recommendations by December 31, 2012 and a final written report of all findings and recommendations by December 31, 2013, when this Executive Order expires.

The Task Force hopes these recommendations are well received and look forward to continuing this important work in 2012 that will help further develop Arizona's solar industry for years to come.

Sincerely,

Co-Chair: Leisa B. Brug,

Energy Policy Advisor to Governor Janice K. Brewer/

Director, Governor's Office of Energy Policy

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Co-Chair: James M. Strock,

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Serve to Lead, Inc.

Arizona Governor's Solar Energy Task Force Permit Reform Sub-Committee White Paper – 12/23/2011

Preface:

This White Paper is the first of a three-part series. The recommendations set forth in this document address permit reform for the vast majority of residential solar installations in the State of Arizona. Forthcoming White Papers will each address the commercial and utility scale market segments.

I. Executive Summary:

Inefficient permitting is a significant barrier to solar energy development. Nationwide, permitting processes of solar installations, whether residential, commercial or utility scale, can be difficult for installers and developers to navigate. A streamlined solar permit process benefits installers, developers, energy consumers and government entities, both local and state, by reducing the time and resources needed to review each proposed solar energy system. As such, the goal of the Permit Reform Sub-Committee of the Governor's Solar Task Force (Task Force) is to recommend best practices, policies and provide suggestions for the use of technical expertise to state and local jurisdictions with permitting authority in Arizona. The proposed reform measures are not intended to compromise safety, but rather they are aimed at eliminating inconsistencies and/or duplicative activities across jurisdictions. The outcome of this recommendation will create a more efficient and navigable process for solar installers, developers, and Authorities Having Jurisdiction (AHJ) which will better position Arizona in the forefront of solar development in the United States and internationally.

Currently in Arizona, there is a disparate set of solar permitting practices in place across AHJ, which has led many jurisdictions to implement unnecessary, complex and inconsistent permitting procedures; thereby, making the permitting process for solar development projects more costly, more time consuming, and less efficient. To alleviate this problem, the Task Force members support the standardization of solar project permitting practices across all state and local jurisdictions. The Permit Reform Sub-Committee intends to accomplish this through the development of a 'best practices' permit procedures applicable for all Arizona AHJ, which if implemented, will result in predictability and reduced uncertainty for solar developers and financiers, thus also helping to mitigate solar project development risk. This will provide the benefit of giving Arizona a competitive advantage over competing states encouraging solar development.

The Permit Reform Sub-Committee recognizes that permit processes do provide a valuable safeguard for consumers, the community and a strong local solar industry. Unpermitted installations raise questions about the safety and reliability of those systems. At the same time, many solar developments installed in the United States share many similarities of design. It is the similarity and commonality of these designs that would allow for a standardized permit process for solar development. Therefore, the State of Arizona through partnership with private industry, municipal and county stakeholders should seek best practices from policies currently in place, and work to promote those permitting practices throughout the state in order to support rapid solar development.

II. Overview

Objective: "To simplify and standardize statewide permitting (costs, approval timeframes and requirements) for solar energy projects in the residential sector."

Approach: Accomplished through modification of three (3) measures / metrics:

Measure / Metric	Benefit
1) Standardized fee schedule	Provides for cost certainty and transparency
2) Expedited review and approval	Facilitates more rapid project development and minimizes financial risk
3) Submittal requirements	Provide for efficiency and cost minimization

Methodology for Residential Sector:

- Identify several Authorities Having Jurisdiction (AHJ) in Arizona that have established efficient permitting processes for residential solar projects.
- Appoint "AHJ Champions" that have already implemented forward thinking solar permitting policies, to promote best practices to other AHJ statewide.
- Develop 'best practices' modus operandi in conjunction with AHJ to implement these standardized
 practices for the residential sector from application through final approval. This procedure shall
 recommend appropriate fee schedules, approval timeframes, and permit submittal documents
 required.
 - o **Fair Flat Fees:** A flat-fee fee structure in lieu of a value-based method to assess permit fees provides transparency, streamlines process and ensures that larger systems are not arbitrarily penalized. Fees should adequately cover AHJ's time and costs associated with providing these services, inclusive of staff/consultant time needed for plan review, inspection and permit issuance. *This service remains constant regardless of system size.*
 - Over-The-Counter Issuance: Issuing over-the-counter permits for residential photovoltaic (PV) systems and solar water heater systems with complete, error-free applications expedites the permit process, when appropriate. This can be accomplished by providing developers with standard plans, so they can essentially "fill in the blanks." AHJ inspections are required prior to final permit approval.
 - Standardized Permit Requirements: AHJ should set and adhere to standard permitting requirements to make the process clear and transparent for all stakeholders (applicants, customers, utilities, and AHJ themselves). The intent of this standardization is to recognize engineering similarities among these smaller residential systems and to establish guidelines to determine when a project is within the boundaries of typical, well-engineered systems. It is not our intent to bypass the engineering process.
 - Reduce Inspection Appointment Windows: Keeping the windows for inspection
 appointments at or below two hours reduces the amount of costly worker time spent
 waiting for inspectors to arrive. Inspectors could also call contractors as appointment
 time grows close to further save time.

- o **Appendix A**: Appendix A provides solar permitting guidelines per AZ Statute 9-468.
- Ensure Authorities Having Jurisdiction (AHJ) have well trained staff to implement this standardized
 process in an effort to expedite plan review time. Training building department staff to review
 permit applications and plans, and to perform standard fire department checks reduces time and
 cost. Jurisdictions and or organizations such as Arizona Building Officials may provide one or halfday workshops and training seminars to relevant staff.
- Incorporate recommendations set forth in this document to ultimately Develop Best Practice
 Document for all AHJ recommending:
 - o Best practices for solar permitting, and the reasoning behind their development.
 - o The benefits to the AHJ of adopting best practices.
 - The relevant data and documents required why certain data is necessary, and other data is not.
 - o Testimonials from AHJ that have economically benefitted from solar development.
 - o Potential incentives from State for adoption of practices, if applicable.
- Provide "solar expert" contact information to answer future questions.
- Maintain list of "Jurisdictions Supporting Solar Best Practices" online.

III. Residential Permitting – Photovoltaic (PV) and Solar Water Heater (SWH)

Photovoltaic (PV) Segment:

Definition – "Residential" is defined as individual residential solar systems installed on the premises of the residential property, for which power is metered behind the residential customer meter.

Typical system size and qualifying eligibility requirements:

Photovoltaic (PV): 1kW - 20kW.

Proposed Measures / Metrics

1) Fee Schedule (flat fee): \$0 - \$500

Justification:

Based on an average plan review requiring 2 hours @ \$78/hour per residential solar application. Based on the average inspection fees required per residential solar application. Examples of AHJ current PV permit fees: City of Surprise = \$0, Town of Marana = \$154, Pima County = \$109, City of Glendale = \$278, City of Scottsdale = \$303

2) Review and Approval Time Frame: Over-The-Counter (OTC) – 10 business days

Justification:

Examples of AHJ current permit turn-around times: City of Surprise – 17 business days, City of Scottsdale - OTC, City of Peoria - 12 business days.

Electronic submittals add additional days to permit approval time frame.

3) Permit Submittal Requirements:

- Completed Application.
- By signing the permit application, installer verifies that they have visually inspected trusses for preexisting damage and that trusses are a minimum "2x" member if array is to be connected to trusses. If damage is noted, repair requirements designed by a structural engineer must then be submitted with the photovoltaic (PV) application.
- The design documents for residential PV systems shall include the following:
 - o Site Plan
 - a. Identify location of PV array, inverter(s) and AC disconnect switch.
 - b. Include written notes detailing the PV array elevation (for example: height above roof, height below parapet, etc.)
 - PV Array Mounting Structure and Flashing Details
 - a. Include applicable roofing standards in notes.
 - Electrical three-line diagram (showing PV array configuration, wiring system, overcurrent protection, inverter, disconnects, required signs, and AC connection to building).
 - a. Note on plans that PV equipment shall be installed in accordance with NEC 690 and posted with applicable warnings, signage and plaques per NEC 705-10, 690-17 and 690-64(b)(5).
 - Cut sheet and listing for inverter (DC to AC conversion).
 - Cut sheet and listing for PV module.
- Truss structural engineering analysis shall not be required for panels whose weight does not exceed
 5 lbs. per square foot and/or point loads do not exceed 50 lbs. If any amount exceeds these values a structural analysis will be required.
- Appendix B: Residential systems shall be compatible with the *City of Scottsdale Green Building Program Solar Panel Placement Design Guidelines for Single-Family Homes*.
- Appendix C: Electrical diagram should be in compliance with the Solar America Boards for Codes and Standards Standard Electrical Diagram and Notes. Applicant fills out the standard electrical diagram completely.

Solar Hot Water Segment:

Typical system size and qualifying eligibility requirements:

Solar Hot Water (SHW): 80 – 120 gallons

Proposed Measures / Metrics

1) Fee Schedule (flat fee): \$0 - \$200

Justification:

Examples of Authorities Having Jurisdiction (AHJ) current PV permit fees: City of Surprise = \$0, Town of Marana = \$50, City of Scottsdale = \$120, City of Glendale = \$146.08, Pima County = \$150 The permit cost for installing a Solar Domestic Water Heating systems shall be treated the same as a water heater replacement.

2) Review and approval time frame: Over-The-Counter (OTC) – 3 business days

Justification:

Examples of AHJ current permit turn-around times: City of Surprise – OTC, City of Scottsdale – 9 business days (only 1 example), City of Peoria – 3 business days.

3) Permit Submittal Requirements:

- Completed Application.
- The design documents for residential Solar Hot Water (SHW) systems shall include the following:
 - o Site Plan
 - a. Identify the location of the solar panel system on the plans.
 - b. Include written notes detailing solar collector, elevation and mounting details for panel installation.
 - Standard plans shall be required and/or on file for systems with water storage on roof (e.g. – integrated collector storage systems or thermosyphon systems).
 - Systems structural engineering analysis shall not be required for flat plate collectors whose weight does not exceed 20 lbs. per square foot on roof slopes of 4/12 or less and 16 lbs. per square foot on roof slopes greater than 4/12.
 - Standard plans shall be on file.
 - Note on plans that Solar Domestic Water Heating equipment shall be installed in accordance with applicable plumbing codes and in accordance with State of Arizona Guidelines.

IV. Resources

- Task Force Oversight: Leisa B. Brug (Energy Policy Advisor to Governor Janice K. Brewer/Governor's Office of Energy Policy), James M. Strock (Serve to Lead, Inc.)
- Task Force Sub-Committee members: Robert Wanless (SOLON Corporation), Laurie Woodall
 (KR Saline & Assoc. PLC), Michael Neary (Arizona Chapter Solar Energy Industries Assoc.), Brad Albert
 (Arizona Public Service), Kate Maracas (Abengoa Solar), Sean Seitz (American Solar)
- Additional: Maryanne Kumiega (SOLON Corporation), Nicholas Theisen (SOLON Corporation), Eric Fitzer (Town of Gila Bend), Maria Baier (Arizona State Land Department), Franc Del Fosse (Snell & Wilmer LLP Law Offices), Rene Guillen (The League of Arizona Cities & Towns), Michael Clack (City of Scottsdale), Dustin Schroff (City of Scottsdale), Gwen Rose (Vote Solar), Todd Madeksza (County Supervisors Association of Arizona), Arlan M. Colton (Pima County Development Services), Betty Stamper (Pima County Development Services), Sarah Ozga (American Solar), Trevor Starkey (American Solar)

V. Conclusion

Standardizing the residential permitting practices of Authorities Having Jurisdiction across the State, along the lines of "best practices" will have the benefit of eliminating inefficiency and uncertainty in the solar permitting process. This step will have the benefit of saving solar project developers valuable time and money by making the permitting process more efficient. It will also allow financial institutions, currently reluctant to invest in solar, to see a clearer picture of the permitting risks to the project, and give them more confidence in the likelihood of seeing a return on investment. It is this certainty and homogeneity that solar project developers need. Through removing governmental impediments, this will help to reduce the cost of solar projects installed.

VI. References

Solar American Board for Codes and Standards: http://solarabcs.org/.

The Vote Solar Initiatives: http://www.votesolar.org. For more information on permitting visit http://votesolar.org/city-initiatives/project-permit/bestpractices/.

Best Practices based on analysis in Loma Prieta Sierra Club's Report, "Solar Electric Permit Fees in Northern California." Mills and Newick. 2008. (http://www.votesolar.org/linked-docs/LomaPrieta_SierraClub_NorCal_PVpermit_study.pdf).

<u>City of Scottsdale – Green Building Program</u> – Solar Panel Placement Design Guidelines for Single-Family Homes (http://www.scottsdaleaz.gov/greenbuilding).

Authorities Having Jurisdiction – City of Peoria, City of Glendale, City of Surprise, Town of Marana, City of Phoenix, Pima County.

The Governor's Solar Energy Advisory Task Force Creation of an Arizona Renewable Energy Rapid Response Team (R³ Team)

Objective:

Public policy efforts under Governor Brewer have been focused on job creation. Job creation and economic development occur best when the systems established to promote public protection operate in an integrated and coordinated way. Too many instances exist, however, when systems established at the local, state or federal level do not operate in a way to **promote both** public protection **and** economic development and job creation.

Governor Brewer has established a Solar Energy Task Force (Task Force) charged to research, evaluate and propose changes to Arizona solar energy programs and policies. An early objective identified by the Task Force is to make Arizona by reputation and action the preferred location to develop and operate both renewable energy projects and the infrastructure to support those projects by streamlining the permitting process. This streamlining is achieved by identifying improvements and eliminating impediments, redundancies, and unnecessary increased monetary or regulatory costs in the permitting process to enhance development of renewable energy projects in Arizona, and thereby enhance Arizona's economic activity.

Governor Brewer has also previously created a Job Creation Task Force that monitors and facilitates the progress of Arizona's ongoing high job-creation initiatives. The efforts of both task forces serve critical needs within the state. However, many aspects of the review and consideration of renewable energy projects require participation, input or approval from federal and other jurisdictional officials who are not represented on either the Solar Energy Task Force or the Job Creation Task Force.

Recommendation:

The Task Force recommends that the Governor, through executive order, create a Renewable Energy Rapid Response Team (R³ Team) to streamline the permitting process for renewable energy projects by improving communication, coordination and understanding of the Federal, state and local governments associated with the review and approval of permits and authorizations for renewable energy generation, transmission, including the potential exporting of renewable energy and other related infrastructure, thereby eliminating redundancies and unnecessary increased monetary or regulatory costs.

Discussion:

The Task Force received compelling evidence from the business community and regulators that the renewable energy industry has the potential to positively impact the economic and development activity in Arizona, particularly with respect to the creation of new jobs. The Task Force finds that enhancing the process involved in the development and operation of renewable generation projects and their related infrastructure would increase economic activity in Arizona significantly and the beneficial impacts would be felt quickly throughout the Arizona economy.

The Task Force understands the considerable process that exists and is being developed to support the permitting of renewable generation facilities. A renewable energy developer has to apply for permits and authorizations and engage with numerous Federal, state and local government entities in developing a generation facility. The process can become cumbersome, and if there is not effective communication, coordination and understanding among the parties, impediments for moving projects forward can arise for both the applicant and the government entities.

The Task Force heard presentations about parts of the process that worked very efficiently and discussed problems that can arise and cause projects to be delayed. Task Force members and non-members, through public testimony, discussed ways to improve the process. As a result of these discussions, the Task Force concurs that one way to help facilitate communication, coordination and understanding of the parties of interest and to eliminate unnecessary monetary or regulatory costs is to have regular meetings of those parties.

To achieve this goal, the Task Force recommends that the Governor, through executive order, create a Renewable Energy Rapid Response Team (R³ Team). The members of the team would be representatives from Federal, state and local government entities that are involved in the permitting/approval of renewable energy generation facilities. Applicants and other interested parties would be invited to provide input through public testimony.

Members of the R³ Team could comprise of a core group of members and a larger group of members who would participate on an as needed basis. Attendees at the R³ Team meetings should be the identified policy maker or their designee empowered to undertake the assignments made at the R³ Team meetings and empowered to commit legally available agency resources to address issues brought before the R³ Team. Members of the team could include (but would not be limited to):

- Governor's Staff
- Arizona Commerce Authority
- Governor's Office of Energy Policy
- Arizona Attorney General's Office
- Arizona Corporation Commission
- Arizona Department of Environmental Quality
- Arizona Department of Transportation
- Arizona Department of Water Resources
- Arizona State Historic Preservation Office
- Arizona State Land Department

- County Supervisors Association of Arizona
- League of Arizona Cities and Towns
- U.S. Bureau of Land Management
- U.S. Forest Service
- U.S. Fish and Wildlife Service
- U.S. Department of Interior
- U.S. Department of Agriculture
- U.S. Department of Defense
- U.S. Department of Energy
- U.S. Army Corps of Engineers

The Task Force further recommends that the R³ Team be tasked with the following:

- 1. Convene regularly scheduled meetings to undertake the work of the R³ Team.
- 2. Evaluate renewable energy projects to establish a framework for the orderly formal review and approval of projects, with priority for consideration to be based on sophistication of the participants in the process, the extent to which necessary advance work already has been undertaken by project participants, timeline for completion, and the likelihood of projects moving forward, job creation and economic development potential.
- 3. Establish best practices recommendations for applicants and regulators to ensure that these critical participants in the application submission and review process each fully understand what is expected from each.
- 4. Identify likely problems and bottlenecks and establish a system for problems or bottlenecks to be addressed efficiently and effectively by applicants or permitting entities.
- 5. Identify any redundancies in the process, including the submission of information applicants routinely submit or provide during the application process to multiple jurisdictions and develop a recommendation that allows for the applicant to submit this information in a single "uniform" application to all relevant jurisdictions to be filed and maintained in a single one location.
- 6. Identify any other redundancies, overlaps or potential efficiency gains in the permitting system and develop methods or recommendations to address these items. The oversight by federal and state regulators may cover common issues of fact. For instance, if the National Environmental Policy Act process is triggered at the Federal level, the Power Plant and Transmission Siting Committee at the State level may work to provide for a consistent, coextensive, coordinated evaluation of the project.
- 7. Provide a venue for applicants to provide public comments regarding their experience in the permitting process and suggestions for the improvement, modification or changes to the permitting process.
- 8. Advise the Governor regarding any recommendations that cannot be implemented by the R³ Team without further action by someone or entity outside of the R³ Team.

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Sample Executive Order 2011-xx

Governor's Renewable Energy Rapid Response Team

WHEREAS, the Governor's Solar Energy Advisory Task Force met and made recommendations to improve the state's environment for developing renewable energy generation; and,

WHEREAS, developing renewable energy generation increases economic activity within the state and creates jobs, and;

WHEREAS, Arizona has some of the best renewable energy resource areas in the world, providing valuable electricity generation for the state and for neighboring states, and;

WHEREAS, Arizona's abundant solar energy resource provides the potential to create both competitive advantage and an economic engine for the state, and;

WHEREAS, the process for developing renewable energy generation can become cumbersome, and could be improved with better communication, coordination and understanding among the parties involved in the permitting process.

NOW, THEREFORE, I, Janice K. Brewer, Governor of the State of Arizona, by virtue of the authority vested in me by the Constitution and laws of this State, hereby order as follows:

- 1. The Governor shall create the Renewable Energy Rapid Response Team (R³ Team) to improve communication, coordination and understanding of the Federal, state and local government entities involved in the permitting and authorization of renewable generation facilities.
- 2. Core members of the R³ Team shall include:
 - Director of the Arizona Commerce Authority (or designee)
 - Chairman of the Arizona Corporation Commission (or designee)
 - Designated representative of the Office of the Arizona Attorney General
 - Director of the Arizona Department of Environmental Quality (or designee)
 - Director of the Arizona Game and Fish Department (or designee)
 - Director of the Arizona Department of Transportation (or designee)
 - Director of the Arizona Department of Water Resources (or designee)
 - Executive Director of the Arizona State Historic Preservation Office (or designee)
 - State Land Commissioner, Arizona State Land Department (or designee)
 - Designated representative of the League of Arizona Cities and Towns

- Designated representative of the County Supervisors Association of Arizona
- Director of the Governor's Office of Energy Policy, who shall chair the R³ Team
- Chief of Staff Governor's Office
- Designated representative of the U.S. Department of Energy
- Designated representative of the U.S. Department of Interior
- v. Additional members of the team may include:
 - Director of the Residential Utility Consumer Office (RUCO) (or designee)
 - Director of the Arizona State Board of Technical Registration (or designee)
 - Designated representative of the U.S. Army Corps of Engineers
 - Designated representative of the U.S. Bureau of Land Management
 - Designated representative of the U.S. Department of Agriculture
 - Designated representative of the U.S. Department of Defense
 - Designated representative of the U.S. Environmental Protection Agency
 - Designated representative of the U.S. Fish and Wildlife Service
 - Designated representative of the U.S. Forest Service
 - Others designated from time to time by the Chair
- vi. The R³ Team is tasked with:
 - i. Convene regularly scheduled meetings to undertake the work of the R³ Team.
 - ii. Evaluate renewable energy projects to establish a framework for the orderly formal review and approval of projects, with priority for consideration to be based on sophistication of the participants in the process, the extent to which necessary advance work already has been undertaken by project participants, timeline for completion, likelihood of projects moving forward, job creation and economic development potential.
 - iii. Establish best practices recommendations for applicants and regulators to ensure that these critical participants in the application submission and review process each fully understand what is expected from each.
 - iv. Identify likely problems and bottlenecks and establish a system for problems or bottlenecks to be addressed efficiently and effectively by applicants or permitting and authorizing entities.

- v. Encourage Arizona State agencies engaged in the permitting and authorization of renewable energy projects for which a federal National Environmental Policy Act (NEPA) action is triggered to conduct joint evaluation processes with the federal agencies involved in the NEPA action, subject to the approval of those federal agencies.
- vi. Identify redundancies in the process, including the submission of information applicants routinely submit or provide during the application process to multiple jurisdictions and develop a recommendation that allows for the applicant to submit this information in a single "uniform" application to all relevant jurisdictions to be filed and maintained in a single one location.
- vii. Provide a venue for applicants to provide public comments regarding their experience in the permitting process and suggestions for the improvement, modification or changes to the permitting process.
- viii. Advise the Governor regarding any recommendations that cannot be implemented by the R³ Team without further action by someone or entity outside of the R³ Team.

Special thanks to the following members who have generously donated their time and expertise to help make Arizona a better place to live and work.

2011 Solar Energy Task Force

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Energy Policy Advisor to Governor Janice K. Brewer/
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